

AMENDMENT TO THE CLAIMS:

Please cancel claims 1-92 without prejudice or disclaimer and add claims 93-108 as follows:

Claims 1-92 (canceled)

Claim 93 (new): An automatically-activated wireless laser scanning 2D bar code symbol reading system for use in a work environment, said system comprising:

(A) a wireless hand-supportable 2D bar code symbol reader in two-way RF communication with a base station operably connected to a host system, by way of an RF-based wireless data communication link having a predetermined RF communication range over which two-way communication of data packets can occur, said wireless hand-supportable bar code reader having a bar code reading mode of operation and a data transmission mode of operation, and including

(1) a hand-supportable housing;
(2) an automatically-activated laser scanning 2-D bar code symbol reading mechanism, disposed in said hand-supportable housing, for automatically (a) producing, during said bar code reading mode of operation, a visible linear-type laser scanning pattern for scanning a 2D bar code symbol structure on an object as said hand-supportable housing is manually transported past said 2D bar code symbol along a height-wise direction by an operator, (b) capturing lines of scan data from said scanned 2D bar code symbol structure, (c) decode processing said scan data, and (d) generating a symbol character data string representative of said read 2-D bar code symbol;

wherein said automatically-activated laser scanning 2-D bar code symbol reading mechanism includes

(i) a bar code symbol data detector for automatically detecting each line of said 2-D bar code symbol during said bar code reading mode of operation, and automatically producing a line of scan data for buffering in a buffer memory, and

(ii) an audible data capture buffering indicator for automatically generating audible sounds as each line of bar code symbol data is captured and buffered in said buffer memory, and

(iii) a decode processor for automatically decode automatically processing an entire set of scan data collected in said buffer memory and corresponding to a scanned 2-D bar code symbol, and generating a symbol character data string representative of said read 2-D bar code symbol;

(3) a data packet group buffer, disposed in said hand-supportable housing, for buffering one or more groups of data packets associated with symbol character data strings produced by said automatically-activated laser-scanning 2-D bar code symbol reading mechanism;

(4) a first RF-based transceiver chipset, disposed in said hand-supportable housing, for transmitting to said base station, groups of data packets associated with one or more of said produced symbol character data strings;

(5) a device controller, disposed within said hand-supportable housing, for controlling said wireless hand-supportable 2D bar code symbol reader; and

(B) said base station installable within a work environment and including

(1) a base station housing, and

(2) a second RF-based transceiver chipset, disposed within said base station housing, for receiving groups of data packets associated with symbol character data strings transmitted from said first RF-based transceiver chipset;

wherein said first and second RF-based transceiver chipsets cooperate to enable the communication of data packets between said wireless hand-supportable bar code symbol reader and said base station, over said RF-based wireless data communication link;

wherein said second RF-based transceiver chipset comprises means for automatically generating and transmitting a reference signal to said first RF-based transceiver chipset over said RF-based wireless data communication link;

wherein said first RF-based transceiver chipset includes means for automatically receiving said reference signal and detecting the strength of said reference signal;

wherein said device controller is programmed to automatically detect when said wireless hand-supportable bar code symbol reader is located inside of said predetermined RF communication range based on measuring the strength of said detected reference signal, and thereupon to automatically transmit groups of data packets associated with one or more symbol character data strings, to said first RF-based transceiver chipset when said wireless hand-

supportable bar code symbol reader is located inside of said predetermined RF communication range; and

wherein said device controller is programmed to automatically detect when said wireless hand-supportable bar code symbol reader is located outside of said predetermined RF communication range based on measuring the strength of said detected reference signal, and thereupon to automatically collect and store in said data packet group buffer, groups of data packets associated with one or more symbol character data strings, when said wireless hand-supportable bar code symbol reader is located outside of said predetermined RF communication range.--

Claim 94 (new): The wireless automatically-activated laser scanning bar code symbol reading system of claim 93, wherein said wireless hand-supportable bar code reader further comprises an out-of-communication range indicator, integrated with said hand-supportable housing, for generating an audible and/or visual signal indicative that said wireless hand-supportable bar code symbol reader is located outside said predetermined RF communication range.

Claim 95 (new): The wireless automatically-activated laser scanning bar code symbol reading system of claim 94, wherein said device controller is further programmed to cause said out-of-communication range indicator to automatically generate audible and/or visual signal when said wireless hand-supportable bar code symbol reader is detected as being located outside of said predetermined RF communication range based on measuring the strength of said detected reference signal.--

Claim 96 (new): The wireless automatically-activated laser scanning bar code symbol reading system of claim 93, wherein said base station further comprises a cradle portion adapted for receiving said hand-supportable housing.--

Claim 97 (new): The wireless automatically-activated laser scanning bar code symbol reading system of claim 96, wherein said cradle includes a radio antenna.--

Claim 98 (new): The wireless automatically-activated laser scanning bar code symbol reading system of claim 93, wherein said data packet group buffer is realized as a memory chip installed aboard said hand-supportable housing.--

Claim 99 (new): The wireless automatically-activated laser scanning bar code symbol reading system of claim 93, wherein said reference signal is a heartbeat-type signal generated from said second RF-based transceiver circuit.--

Claim 100 (new): The wireless automatically-activated laser scanning bar code symbol reading system of claim 93, which further comprises a good read indicator, integrated with said hand-supportable housing, for indicating each instance of when a bar code symbol is read by said automatically-activated laser-scanning bar code symbol reading mechanism and a symbol character data string representative thereof is produced.--

Claim 101 (new): The wireless automatically-activated laser scanning bar code symbol reading system of claim 93, which further comprises an objection detection subsystem disposed within said hand-supportable housing and including infrared (IR) signal transmission/receiving circuitry for automatically detecting said object within an object detection field definable relative to said hand-supportable housing.--

Claim 102 (new): The wireless automatically-activated laser scanning bar code symbol reading system of claim 93, which further comprises an objection detection subsystem disposed within said hand-supportable housing, and including low-power non-visible laser beam signaling mechanism for automatically detecting said object within an object detection field definable relative to said hand-supportable housing.--

Claim 103 (new): The wireless automatically-activated laser scanning bar code symbol reading system of claim 93, wherein said device controller is further programmed so that said device controller automatically tests said RF-based wireless data communication link prior to transmitting symbol character data, stored in said data packet group buffer, to said first RF-based transceiver chipset when a data transmission control activation signal is generated while said

wireless hand-supportable bar code symbol reader is once again located inside of said predetermined RF communication range.--

Claim 104 (new): The wireless automatically-activated laser scanning bar code symbol reading system of claim 93, wherein said device controller is programmed so that symbol character data stored within said data packet group buffer is automatically cleared from said data packet group buffer when holding down a manually-operated data transmission activation switch for a second predetermined time duration.--